

ENGINE GUIDE – World War II

PISTON ENGINES

KEY 1

- 1st Column:** Number of engines / manufacturer.
2nd Column: Engine name / engine designation + (civil designation).
3rd Column: Maximum power output range across aircraft production run.
4th Column: Configuration & number of cylinders / cooling method / extra notes.

KEY 2

- P&W:** Pratt & Whitney.
T.C.: Turbo Compound.
T.S.C.: Turbo-Supercharger.
W.I.: Water Injection.

Grasshopper Series

L-2, L-3, L-4, NE, L-8 Production

1 / Continental O-170 65hp Opposed 4 / Air

L-2, L-3, L-4 Impressments

1 / Continental O-170 65hp Opposed 4 / Air
1 / Continental A75-9 (civil) 75hp Opposed 4 / Air
1 / Franklin O-150 65hp Opposed 4 / Air
1 / Franklin O-175 65hp Opposed 4 / Air
1 / Lycoming O-145 65hp Opposed 4 / Air
1 / Lycoming GO-145 100hp Opposed 4 / Air

L-16 Production

1 / Continental O-190 85hp Opposed 4 / Air
1 / Continental O-205 90hp Opposed 4 / Air

HE Production

1 / Lycoming O-235 104hp Opposed 4 / Air

L-14, L-21 Production

1 / Lycoming O-290 125hp – 135hp Opposed 4 / Air

L-18 Production

1 / Continental O-205 90hp Opposed 4 / Air

L-6 Production

1 / Franklin O-200 100hp In-line 4 / Air

Beechcraft C-45 Expeditor

Civil Model 18 Production (pre WW2)

2 / Wright J3 Whirlwind R-760 320hp Radial 7 / Air
2 / Jacobs L-5 R-830 285hp Radial 7 / Air
2 / Jacobs L-6 R-915 330hp Radial 7 / Air
2 / Wright J6 Whirlwind R-975 365hp Radial 9 / Air
2 / P&W Wasp Junior R-985 450hp Radial 9 / Air

C-45, AT-7, AT-11, F-2, JRB, SNB Production

C-45G, TC-45G, C-45H, AT-11A, JRB-6, SNB-5 Conversions

2 / P&W Wasp Junior R-985 450hp Radial 9 / Air

Civil Model 18 Production (post WW2)

2 / Continental R-9A* 525hp Radial 9 / Air
2 / P&W Wasp Junior R-985 450hp Radial 9 / Air

* developed from the Wright Whirlwind R-975.

Bell P-39 Airacobra / P-63 Kingcobra

P-39 Production / XP-39B Conversion

1 / Allison V-1710 1100hp – 1325hp V-12 / Liquid

P-63 Production
 1 / Allison V-1710 1325hp – 1425hp V-12 / Liquid

Boeing B-17 Flying Fortress

Model 299 Production
 4 / P&W Hornet R-1690 750hp Radial 9 / Air
B-17 Production*
 4 / Wright Cyclone GR/R-1820 900hp – 1380hp Radial 9 / Air
 * B-17F, B-17G with T.S.C.
XB-38 Conversion
 4 / Allison V-1710 1425hp V-12 / Liquid

Boeing B-29 Superfortress / C-97 Stratofreighter / B-50 Superfortress

B-29 Production / YB-29J Conversion
 4 / Wright Cyclone R-3350 2200hp Radial 18 / Air / T.S.C.
XB-39 Conversion
 4 / Allison V-3420 2600hp V-24 / Liquid
XB-44 Conversion (XB-29D – B-50 prototype)
 4 / P&W Wasp Major R-4360 3500hp Radial 28 / Air / T.S.C.

XC-97, YC-97 Production
 4 / Wright Cyclone R-3350 2200hp – 2325hp Radial 18 / Air / T.S.C.
*YC-97A to KC-97G, Model 377 Stratocruiser Production**
 4 / P&W Wasp Major R-4360 3000hp – 3800hp Radial 28 / Air / T.S.C.
 * KC-97L conversion with 2 General Electric J47-GE, 5200lbst, jet-pods.

*B-50 Production**
 4 / P&W Wasp Major R-4360 3500hp Radial 28 / Air / T.S.C.
 * KB-50J conversion with 2 General Electric J47-GE, 5200lbst, jet-pods.

Boeing-Stearman PT-13 / PT-17 Kaydet

Model X70, Export Model 73, 75, PT-13, PT-17, PT-27, N2S Production / Model X75L3 Conversion
 1 / Continental R-670 220hp Radial 7 / Air
 1 / Lycoming R-680 200hp – 220hp Radial 9 / Air
Export Model 73, 75, Model X75 Production
 1 / Wright J3 Whirlwind R-760 225hp – 320hp Radial 7 / Air
NS-1 Production
 1 / Wright J5 Whirlwind R-790 220hp Radial 7 / Air
PT-18 Production
 1 / Jacobs R-755 225hp Radial 7 / Air
Model 76 Production
 1 / P&W Wasp Junior R-985 320hp – 400hp Radial 9 / Air
 1 / Wright J3 Whirlwind R-760 320hp Radial 7 / Air
 1 / Wright J6-9 Whirlwind R-975 420hp Radial 9 / Air
Model A75L5 Conversions
 1 / Lycoming O-435 190hp Opposed 6 / Air

Brewster F2A Buffalo

F2A & export Buffalo Production
 1 / Wright Cyclone GR/R-1820 950hp – 1200hp Radial 9 / Air

Consolidated B-24 Liberator

*B-24, AT-22, C-87, PB4Y, RY, R2Y Production
XB-24B, XB-24K Conversions*

4 / P&W Twin Wasp R-1830 1200hp – 1350hp Radial 14 / Air

Consolidated B-32 Dominator

B-32 Production

4 / Wright Cyclone R-3350 2200hp Radial 18 / Air / T.S.C.

Consolidated PBY Catalina

PBY, PBN, PBV, PB2B, Canso Production

2 / P&W Twin Wasp R-1830 900hp – 1200hp Radial 14 / Air

Consolidated PB2Y Coronado

*XPB2Y-1 to PB2Y-3 Production / XPB2Y-3,
PB2Y-3R, XPB2Y-5, PB2Y-5 Conversions*

4 / P&W Twin Wasp R-1830 1050hp – 1200hp Radial 14 / Air

XPB2Y-4 Conversion

4 / Wright Cyclone R-2600 1700hp Radial 14 / Air

Curtiss C-46 Commando

CW-20 Production

2 / Wright Cyclone R-2600 1700hp Radial 14 / Air

C-46 Production / XC-46B Conversion

2 / P&W Double Wasp R-2800 2000hp – 2100hp Radial 18 / Air

XC-46L Conversion

2 / Wright Cyclone R-3350 2500hp Radial 18 / Air

Curtiss P-40 Warhawk

P-40 to P-40N Production / XP-40Q, P-40R Conversions

1 / Allison V-1710 1160hp – 1425hp V-12 / Liquid

P-40F, P-40L Production

1 / Packard Merlin 28, 29, 31 (V-1650) 1300hp V-12 / Liquid

XP-40F Conversion

1 / Rolls Royce Merlin 28 1300hp V-12 / Liquid

Curtiss SB2C Helldiver

SB2C, SBF, SBW, A-25 Production

1 / Wright Cyclone R-2600 1700hp – 2100hp Radial 14 / Air

Douglas A-20 Havoc

Model 7B, DB-7 Production

2 / P&W Twin Wasp R-1830 1100hp – 1200hp Radial 14 / Air

DB-7A/B/C, A-20 Production

2 / Wright Cyclone R-2600 1600hp – 1700hp Radial 14 / Air

Douglas A-26 Invader

A-26 Production

2 / P&W Double Wasp R-2800 2000hp Radial 18 / Air

YB-26K, B-26K Conversions

2 / P&W Double Wasp R-2800 2500hp Radial 18 / Air / W.I.

Douglas DC-1 / DC-2 Military Series

<i>DC-1, DC-2, C-32, C-33, C-34, C-39, C-42, R2D Production</i>			
2 / Wright	Cyclone R-1820	690hp – 1200hp	Radial 9 / Air
<i>DC-2A Production / DC-1A Conversion</i>			
2 / P&W	Hornet R-1690	700hp – 720hp	Radial 9 / Air
<i>DC-2B Production</i>			
2 / Bristol	Pegasus VI	690hp	Radial 9 / Air
<i>B-18 Production</i>			
2 / Wright	Cyclone R-1820	930hp – 1000hp	Radial 9 / Air
<i>B-23 Production</i>			
2 / Wright	Cyclone R-2600	1600hp	Radial 14 / Air

Douglas DC-3 / C-47 Skytrain

<i>DST, DC-3, DC-3B, C-49, C-50, C-51, C-52, R4D Production / C-84 Conversion</i>			
2 / Wright	Cyclone R-1820	1000hp – 1200hp	Radial 9 / Air
<i>DST-A, DC-3A, DC-3D, C-41, C-47*, C-48, C-52, C-53, C-68, C-117, R4D Production</i>			
2 / P&W	Twin Wasp R-1830	1000hp – 1200hp	Radial 14 / Air
<i>* C-47B with high-altitude S.C.</i>			
<i>C-47E, EC-47Q, (2nd Super DC-3) Conversions</i>			
2 / P&W	Twin Wasp R-2000	1290hp, (1450hp)	Radial 14 / Air
<i>Super DC-3, YC-129, R4D-8 Conversions</i>			
2 / Wright	Cyclone R-1820	1475hp	Radial 9 / Air

Douglas DC-4 / C-54 Skymaster

<i>DC-4 (DC-4E) Production</i>			
4 / P&W	Twin Hornet R-2180	1400hp	Radial 14 / Air
<i>C-54, DC-4 Production</i>			
4 / P&W	Twin Wasp R-2000	1350hp – 1450hp	Radial 14 / Air
<i>XC-54K Conversion</i>			
4 / Wright	Cyclone R-1820	1425hp	Radial 9 / Air
<i>XC-114, XC-116 Production</i>			
4 / Allison	V-1710	1620hp	V-12 / Liquid
<i>Canadair North Star, Argonaut Production</i>			
4 / Rolls Royce	Merlin 620, 622, 624, 626	1725hp – 1760hp	V-12 / Liquid
<i>Canadair Model CL-5 Production</i>			
4 / P&W	Twin Wasp R-2800	2100hp	Radial 18 / Air

Douglas SBD Dauntless

<i>SBD, A-24 Production / XSBD-6 Conversion</i>			
1 / Wright	Cyclone R-1820	1000hp – 1350hp	Radial 9 / Air

Fairchild PT-19 / PT-23 / PT-26 Cornell

<i>Model M-62 Production</i>			
1 / Ranger	L-410 (6-410)	165hp	In-line 6 / Air
<i>Model M-62, M-62A, PT-19, PT-26 Production</i>			
1 / Ranger	L-440 (6-440)	175hp – 200hp	In-line 6 / Air
<i>Model M-62B Production</i>			
1 / Warner	Super Scarab R-500	165hp	Radial 7 / Air
<i>PT-23 Production / XPT-23 Conversion</i>			
1 / Continental	R-670	220hp	Radial 7 / Air
<i>Cornell Mk. III Conversion</i>			
1 / Lycoming	R-680	220hp	Radial 9 / Air

Grumman F4F Wildcat

F4F, FM-1, Martlet Production / XF4F-3 Conversion

1 / P&W Twin Wasp R-1830 1050hp – 1200hp Radial 14 / Air

XF4F-5, XF4F-8, FM-2, Martlet Production

1 / Wright Cyclone R-1820 1200hp – 1350hp Radial 9 / Air

Grumman F6F Hellcat

F6F Production / XF6F-2, -4, -6 Conversions*

1 / P&W Double Wasp R-2800 2000hp – 2200hp Radial 18 / Air

** XF6F-1 initially with a Wright Cyclone R-2600 / 1700hp.*

Grumman JF / J2F Duck

XJF-1 Production

1 / P&W Twin Wasp Junior R-1535 700hp Radial 14 / Air

JF-1 Production

1 / P&W Twin Wasp R-1830 700hp Radial 14 / Air

JF-2, JF-3, J2F-1 to J2F-6, XJL-1 Production

1 / Wright Cyclone R-1820 750hp – 1350hp Radial 9 / Air

Grumman JRF Goose / J4F Widgeon

Model G-21, XJ3F, JRF, OA-9 Production

2 / P&W Wasp Junior R-985 450hp Radial 9 / Air

Model G-44, J4F Production

2 / Ranger L-440 (6-440) 200hp In-line 6 / Air

SCAN Type 30 Production

2 / Mathis 8G40 190hp In-line 8 / Air / SCAN 30

2 / Salmson 8-AS-00 240hp V-8 / Liquid / SCAN 30A

2 / DeHavilland Gipsy Queen II 200hp In-line 6 / Air / SCAN 30G

2 / Lycoming GO-435 260hp Flat 6 / Air / SCAN 30L

Grumman TBF / TBM Avenger

TBF, TBM Production / XTBF-2, -3,

XTBM-2, -3 Conversions

1 / Wright Cyclone R-2600 1700hp – 1900hp Radial 14 / Air

Lockheed Hudson / Lodestar / Ventura Series

Hudson series, A-28,

Lodestar series Production

2 / P&W Twin Wasp R-1830 1050hp – 1200hp Radial 14 / Air

Super Electra series, Hudson series, A-29,

AT-18, Lodestar series, B-34 Production

2 / Wright Cyclone R-1820 900hp – 2000hp Radial 9 / Air

Super Electra series, Lodestar series Production

2 / P&W Hornet R-1690 750hp – 875hp Radial 9 / Air

Ventura series, PV Production

2 / P&W Double Wasp R-2800 1850hp – 2000hp Radial 18 / Air

B-37 Production

2 / Wright Cyclone R-2600 2000hp Radial 14 / Air

Lockheed C-69 / C-121 Constellation

L-049, L-1049, L-1649, C-69,

C-121, PO, R7V, WV Production

4 / Wright Cyclone R-3350 2200hp – 3400hp Radial 18 / Air / T.C.

XC-69E Conversion
 4 / P&W Double Wasp R-2800 2000hp Radial 18 / Air

Lockheed P-38 Lightning

P-38, F-4, F-5 Production / XP-38K Conversion
 2 / Allison V-1710 1150hp – 1425hp V-12 / Liquid
XP-49 Production
 2 / Continental XIV-1430 1350hp (inverted) IV-12 / Liquid
XP-58 Production
 2 / Allison V-3420 2600hp V-24 / Liquid

Martin B-26 Marauder

B-26, AT-23 Production
 2 / P&W Double Wasp R-2800 1850hp – 2000hp Radial 18 / Air

Martin PBM Mariner / P5M Marlin

PBM-1 to PBM-3 Production
 2 / Wright Cyclone R-2600 1600hp – 1900hp Radial 14 / Air
PBM-5 Production
 2 / P&W Double Wasp R-2800 2100hp Radial 18 / Air

P5M Production
 2 / Wright Cyclone R-3350 3400hp – 3450hp Radial 18 / Air / W.I.

North American AT-6 Texan

NA-16, BT-9 Production
 1 / Wright J6-9 Whirlwind R-975 400hp Radial 9 / Air
BT-14 Production
 1 / P&W Wasp Junior R-985 450hp Radial 9 / Air
NA-26, NA-44, NJ, BC-1, AT-6, SNJ, AT-16, Harvard, Wirraway Production / BT-10 Conversion
 1 / P&W Wasp R-1340 500hp – 600hp Radial 9 / Air
XAT-6E Conversion
 1 / Ranger SGV770B-3 R-770 575hp V-12 / Liquid
XSN2J-1 Production
 1 / Wright Cyclone R-1820 1100hp Radial 9 / Air

North American B-25 Mitchell

NA-40 Production
 2 / P&W Twin Wasp R-1830 1100hp Radial 14 / Air
*B-25 Production / NA-40B Conversion**
 2 / Wright Cyclone R-2600 1700hp / 1350hp* Radial 14 / Air

North American P-51 Mustang / P-82 Twin Mustang

NA-73, P-51 to P-51A Production
 1 / Allison V-1710 1150hp – 1325hp V-12 / Liquid
P-51B to P-51M Production / XP-51B Conversion
 1 / Packard Merlin 68, 69 (V-1650) 1380hp – 1490hp V-12 / Liquid
XP-51G Production
 1 / Rolls Royce Merlin 45M 1675hp V-12 / Liquid
XP-51J Production
 1 / Allison V-1710 1500hp V-12 / Liquid

<i>P-51D Australia Production</i>			
1 / Rolls Royce Merlin 66, 70		1375hp – 1400hp	V-12 / Liquid
1 / Packard Merlin 61 (V-1650)		1450hp – 1590hp	V-12 / Liquid

<i>XP-82, P-82B, P-82F Production</i>			
2 / Packard Merlin 68 (V-1650)		1860hp	V-12 / Liquid
<i>XP-82A, P-82E, P-82G Production</i>			
2 / Allison V-1710		1900hp	V-12 / Liquid

Northrop P-61 Black Widow

<i>P-61, F-15 Production / XP-61D Conversion*</i>			
2 / P&W Double Wasp R-2800		2000hp – 2100hp	Radial 18 / Air
* with T.S.C.			

Republic P-47 Thunderbolt

<i>P-47 Production / XP-47E, YP-47M, XP-47N Conversions</i>			
1 / P&W Double Wasp R-2800		2000hp – 2800hp	Radial 18 / Air / T.S.C.
<i>XP-47H Conversion</i>			
1 / Chrysler XIV-2220		2300hp	(inverted) V-16 / Liquid

Stinson L-5 Sentinel

<i>Model V-75 Production</i>			
1 / Lycoming ?		100hp	Opposed 4 / Air
1 / Franklin ?		125hp	Opposed 4 / Air
<i>Model V-76, L-5 Production</i>			
1 / Lycoming O-435		175hp – 190hp	Opposed 6 / Air

Vought F4U Corsair

<i>F4U, AU, F3A, FG Production</i>			
<i>XF4U-3, -3B, -4, -5, XF2G-1 Conversions</i>			
1 / P&W Double Wasp R-2800		1800hp – 2450hp	Radial 18 / Air T.S.C. or W.I.
<i>F2G Production</i>			
1 / P&W Wasp Major R-4360		3000hp	Radial 28 / Air / T.S.C.

Vultee BT-13 / BT-15 Valiant

<i>BC-3, Model V-54 Production</i>			
1 / P&W Wasp R-1340		600hp	Radial 9 / Air
<i>Model V-54A, BT-13 Production</i>			
1 / P&W Wasp Junior R-985		450hp	Radial 9 / Air
<i>BT-15 Production</i>			
1 / Wright Whirlwind R-975		450hp	Radial 9 / Air

TURBOPROP ENGINES

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- 4th Column:** Engine type.

Boeing C-97 Stratofreighter

YC-97J, Model 377-SG Super Guppy Conversions

4 / Pratt & Whitney T34-P 5700shp 3-bladed Turboprop

Model 101 / 201 Guppy Conversions

4 / Allison T56-A (501-D) 4912shp 4-bladed Turboprop

Curtiss C-46 Commando

*XC-113 Conversion**

1 / General Electric T31-GE 2300shp 4-bladed Turboprop

** port engine remained as R-2800.*

Lockheed C-69 / C-121 Constellation

R7V-2 (YC-121F) Production

4 / Pratt & Whitney T34-P 6000shp 3-bladed Turboprop